Application Serial No.: 10/784,870

Response to Office Action mailed February 12, 2007

AMENDMENTS TO THE CLAIMS

- 1. 6. (Canceled)
- 7. (Currently Amended) An isolated nucleic acid encoding an alkaline protease having an amino acid sequence which is at least 90% homologous to an amino acid sequence of SEQ ID NO: 1, wherein said isolated alkaline protease has alkaline protease activity, and said alkaline protease has the following physicochemical properties:
- (i) Acting pH range acting over a wide pH range of 4-13 and exhibiting, at a pH of 6-12, 80% or more the activity at the optimum pH;
- (ii) Stable pH range being stable over a pH range of 6-11 when treated at 40°C for 30 minutes;
 - (iii) Isoelectric point of approximately 8.9-9.1; and
 - (iv) Effect of a fatty acid casein-degrading activity not being inhibited by oleic acid.
- 8. (Previously Presented) A microorganism which is transformed with the nucleic acid of claim 7 and produces the alkaline protease.
 - 9. (Previously Presented) The microorganism of claim 8, which is a bacteria.
 - 10. 14. (Canceled)
- 15. (Previously Presented) The microorganism of claim 8, which belongs to the genus Bacillus.
 - 16. 18. (Canceled)
- 19. (Previously Presented) A method of producing the microorganism of claim 8, comprising transforming a microorganism with the nucleic acid.
- 20. (Previously Presented) A method of producing the alkaline protease of claim 7, comprising culturing a microorganism which produces the alkaline protease in a culture medium and then isolating the alkaline protease from the culture medium.

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21. (Currently Amended) An isolated nucleic acid encoding an alkaline protease having an amino acid sequence which is at least 90% homologous to an amino acid sequence of SEQ ID NO: 2, wherein said isolated alkaline protease has alkaline protease activity, and said alkaline protease has the following physicochemical properties:

(i) Acting pH range acting over a wide pH range of 4-13 and exhibiting, at a pH of 6-12, 80% or more the activity at the optimum pH;

(ii) Stable pH range being stable over a pH range of 6-11 when treated at 40°C for 30 minutes;

- (iii) Isoelectric point of approximately 8.9-9.1; and
- (iv) Effect of a fatty acid casein-degrading activity not being inhibited by oleic acid.
- 22. (Previously Presented) A microorganism which is transformed with the nucleic acid of claim 21 and produces the alkaline protease.
 - 23. (Previously Presented) The microorganism of claim 22, which is a bacteria.
 - 24. 28. (Canceled)
- 29. (Previously Presented) The microorganism of claim 22, which belongs to the genus Bacillus.
 - 30. 32. (Canceled)
- 33. (Previously Presented) A method of producing the microorganism of claim 22, comprising transforming a microorganism with the nucleic acid.
- 34. (Previously Presented) A method of producing the alkaline protease of claim 21, comprising culturing a microorganism which produces the alkaline protease in a culture medium and then isolating the alkaline protease from the culture medium.

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SUPPORT FOR THE AMENDMENTS

Claims 1-6, 18, and 32 were previously canceled.

Claims 10-14, 16-17, 24-28, and 30-31 are canceled herein.

Claims 7 and 21 have been amended.

Support for the amendment of Claims 7 and 21 is provided by original Claims 1, 3, and 4.

No new matter has been added by the present amendment.